



Federal Communications Commission Public Safety Spectrum Update

**Texas Interoperable Communications Coalition (TxICC)
Conference
Austin, Texas
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Virtual Presentation**



Contact Info



Federal Communications Commission

Public Safety and Homeland Security Bureau

Brian Marengo

Electronics Engineer

Policy and Licensing Division

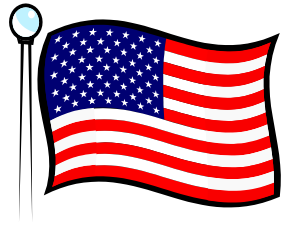
45 L Street NE
Washington, DC 20554

Phone: 202-418-0838

Email: Brian.Marengo@fcc.gov



Negotiating Protocols Covering Public Safety Spectrum with Mexico



FCC

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State Dept.

IFT

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SCT

**Bureaus Involved Include:
Public Safety and
Homeland Security
Bureau, Wireless
Telecommunications
Bureau and International
Bureau**

**I participate in all
negotiations impacting
how the U.S. uses public
safety spectrum along the
border**



Topics for FCC Update



- I. 700 MHz Band:**
 - a) Cross-Border Issues with Mexico**
 - b) State License Substantial Service**

- II. 800 MHz Band: Interstitial Channel in Mid-Band**

- III. 4.9 GHz Band: Rulemaking**



I.

The 700 MHz Band





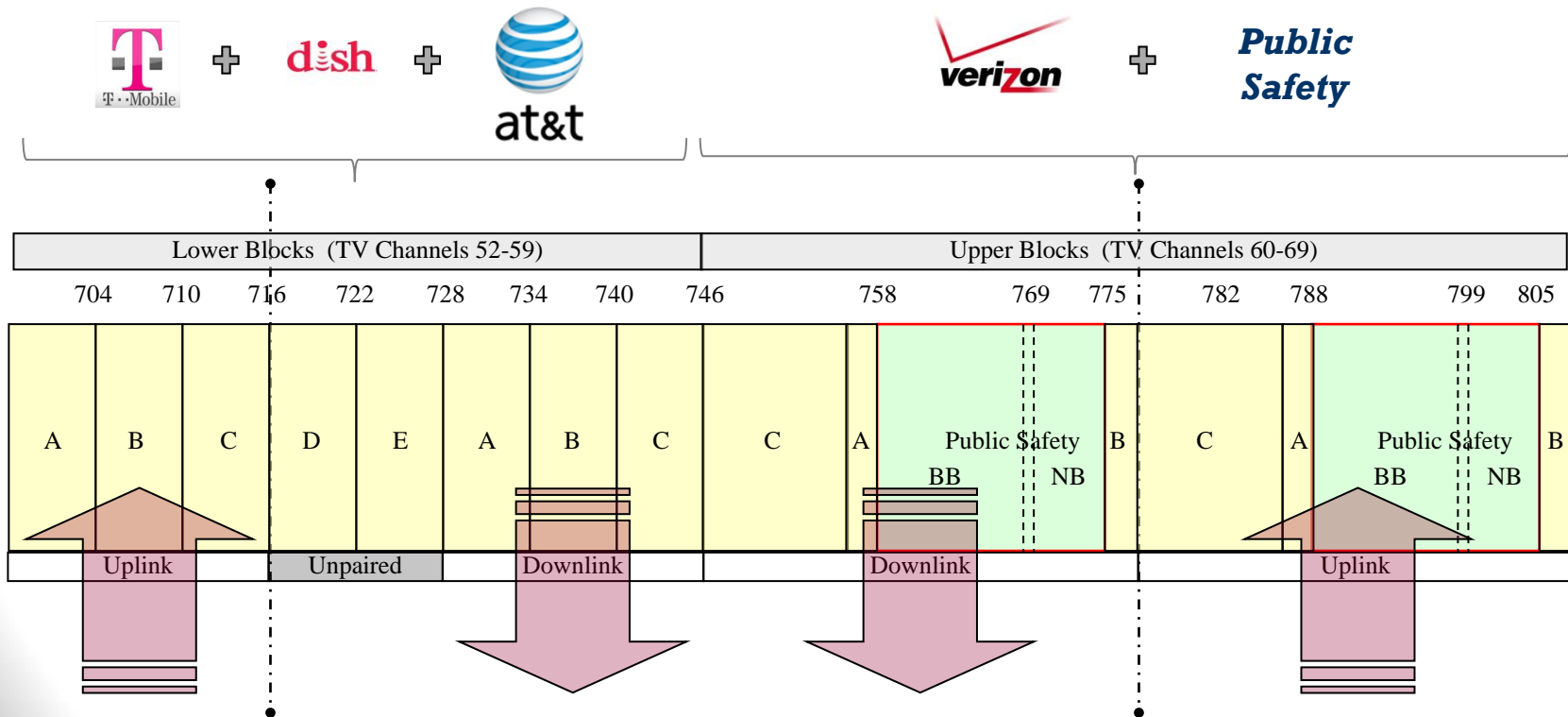
I. a) 700 MHz Cross-Border Issues with Mexico





The 700 MHz Band

U.S Domestic Band Plan at 700 MHz Includes a Mix of Commercial and Public Safety Operators



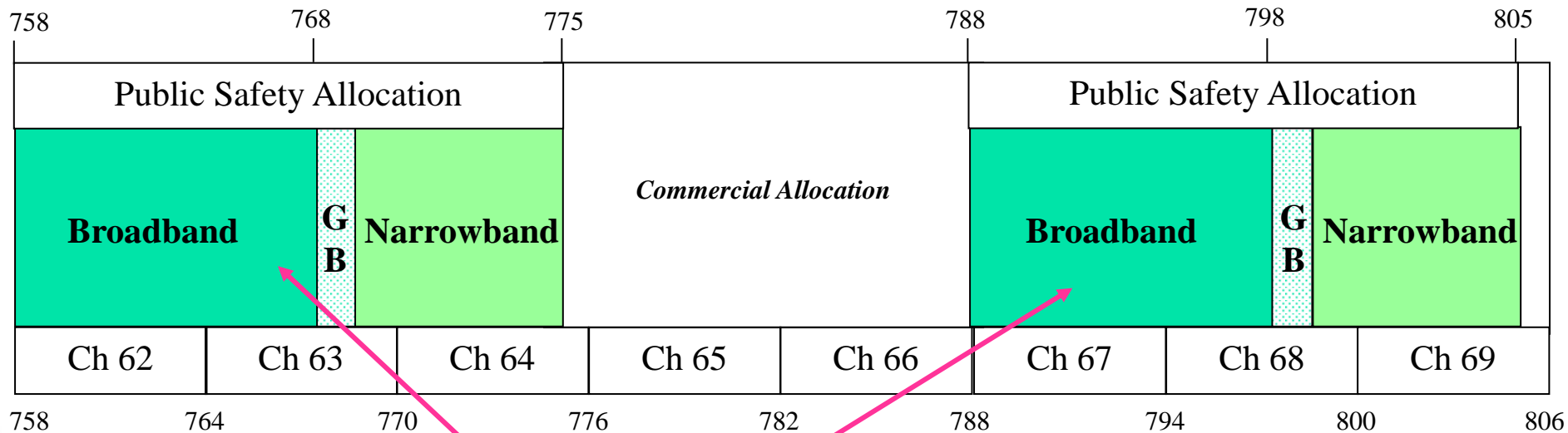


The 700 MHz Band



700 MHz Band Plan for Public Safety Services in U.S.

Frequencies in MHz

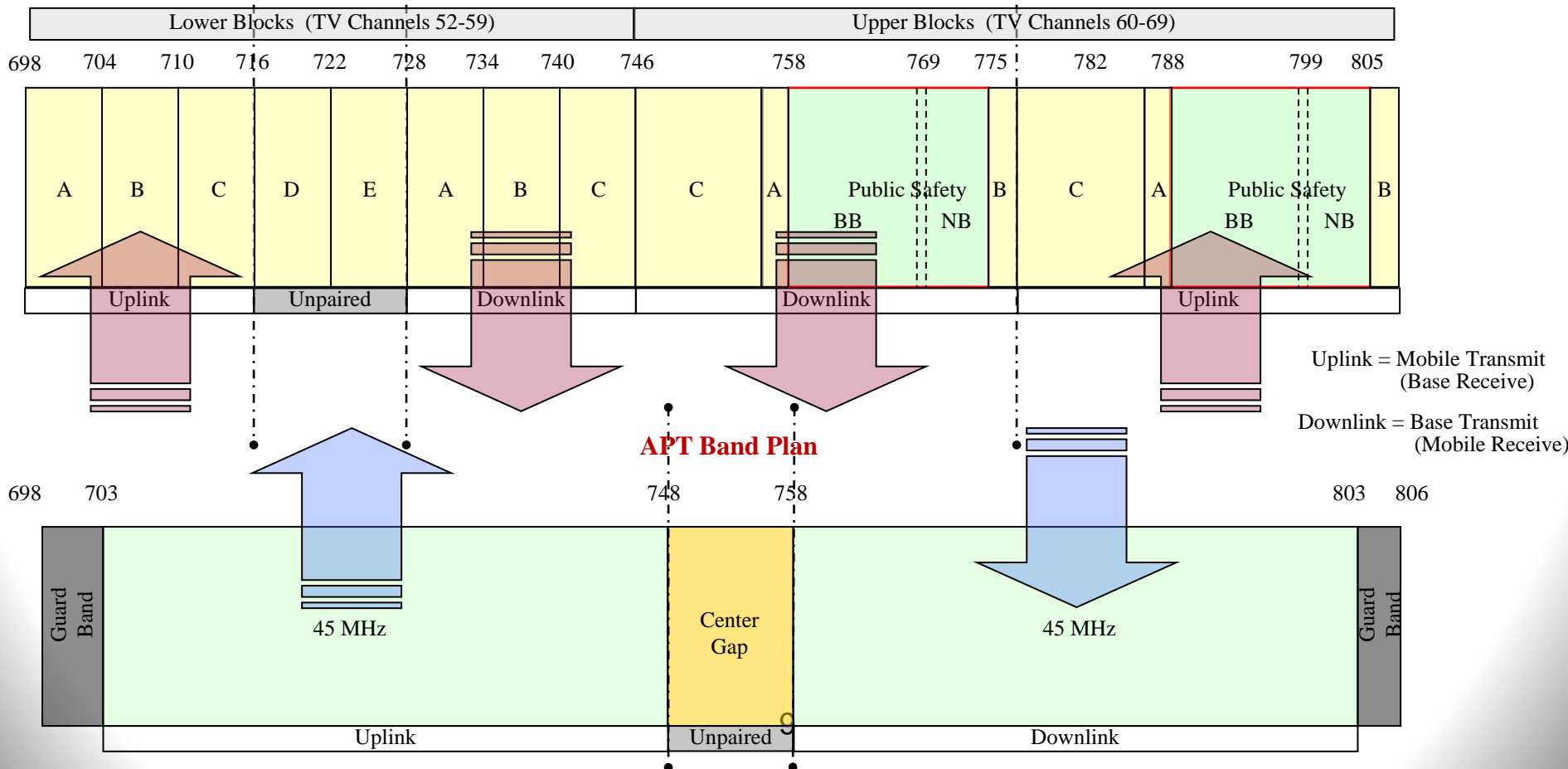


First Net License



700 MHz Cross-Border Issues with Mexico

US Band Plan vs. Mexico's Asia Pacific Telecommunity (APT) Band Plan



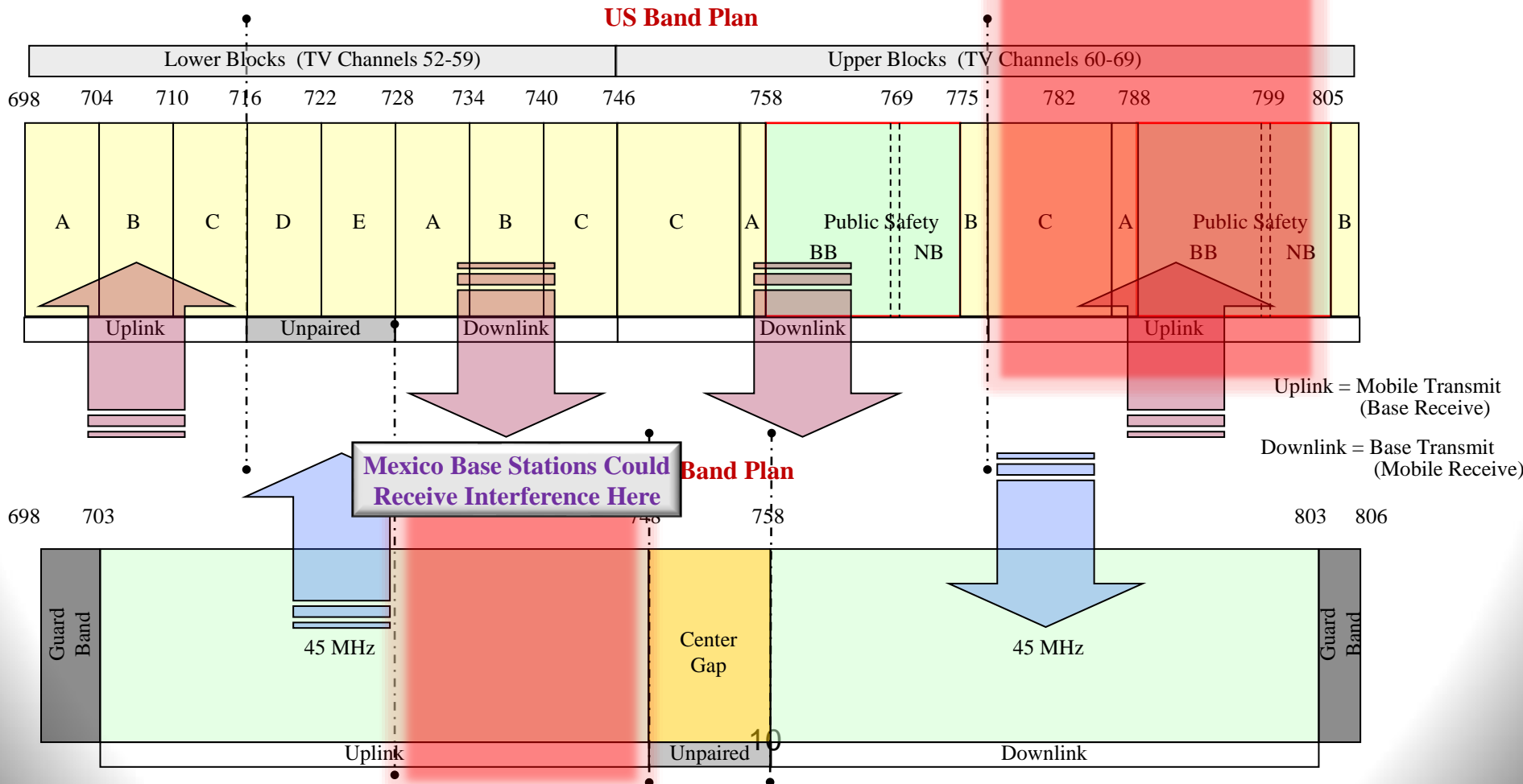


700 MHz Cross-Border Issues with Mexico



Coordination Needed to Avoid Mutual Interference

U.S. Base Stations Could Receive Interference Here





700 MHz Cross-Border Issues with Mexico



Cross-Border Commercial Carrier Agreement

- ➔ In April 2020, Verizon and AT&T signed an agreement with Altán, the broadband operator in Mexico, to prevent interference in incompatible segments of the band.
- ➔ Each operator would limit its transmissions to segments of the band that won't cause interference to users on the other side of the border.



700 MHz Cross-Border Issues with Mexico



Benefits of Operator Agreement

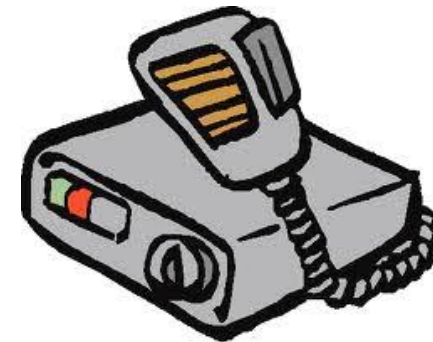
- ★ Resolves interference to Verizon and FirstNet from incompatibility of band plans.
- ★ Altán agrees not to transmit in segment of band where FirstNet and PS Narrowband licensees are most susceptible to interference

Government Discussions Ongoing

- ➔ Government-to-Government discussions regarding updating the existing Protocol to reflect the current bands used in the U.S. and Mexico are ongoing.



I. b) 700 MHz State License Substantial Service

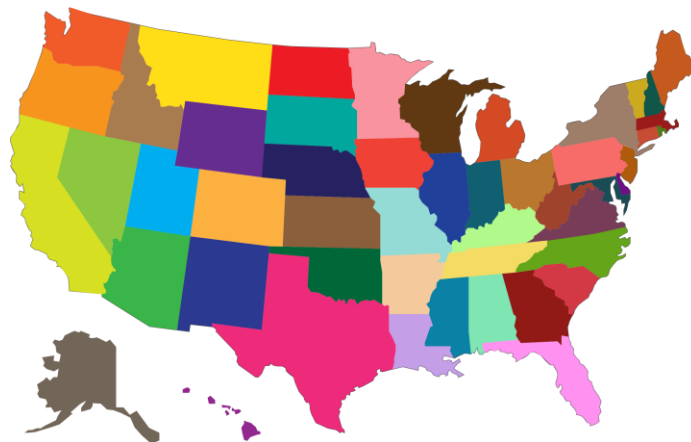




700 MHz State Licensee Substantial Service Showings



- ★ **The Commission designated ninety-six channel pairs (12.5 kHz bandwidth) in the 700 MHz narrowband spectrum for public safety use by states, the District of Columbia, and U.S. territories**
- ★ **Each state licensee receives a geographic area license for those channels, covering the geopolitical boundaries of its jurisdiction.**





700 MHz State Licensee Substantial Service Showings



➔ The Commission established a five-year interim benchmark and a ten-year final benchmark for state licensees to establish specified levels of “substantial service” within their statewide license areas.

└→ *“Substantial service” is defined as the construction and operation of facilities on state channels which is “sound, favorable, and substantially above a level of mediocre service.”*

➔ The due date for the ten-year final benchmark showing was June 13, 2019.

⚠ By this date, state licensees needed to certify that they were providing or prepared to provide “substantial service” to **two-thirds** of their population or territory. ⚠



700 MHz State Licensee Substantial Service Showings



Texas's Final Substantial Service Showing is Under Review



Texas timely filed its final substantial service showing on June 7, 2019. We've recently had a conversation clarifying the status of certain state license channels. We are awaiting further information from Texas after which staff will continue its review.





II. The 800 MHz Band: Interstitial Channel in Mid-Band



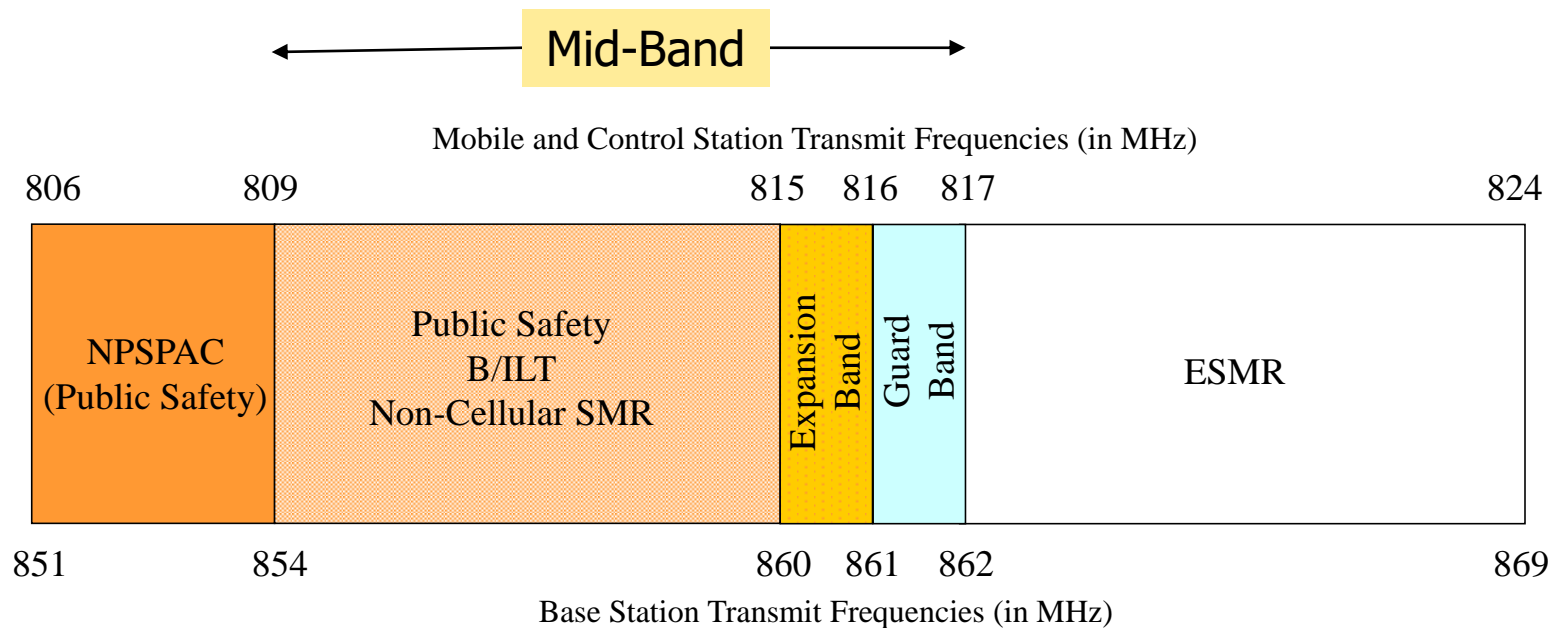


800 MHz Interstitial Channel in Mid-Band



The 800 MHz Mid-Band

In October 2018, the Commission released an order which established 12.5 kilohertz interstitial channels to the 800 MHz Mid-Band.

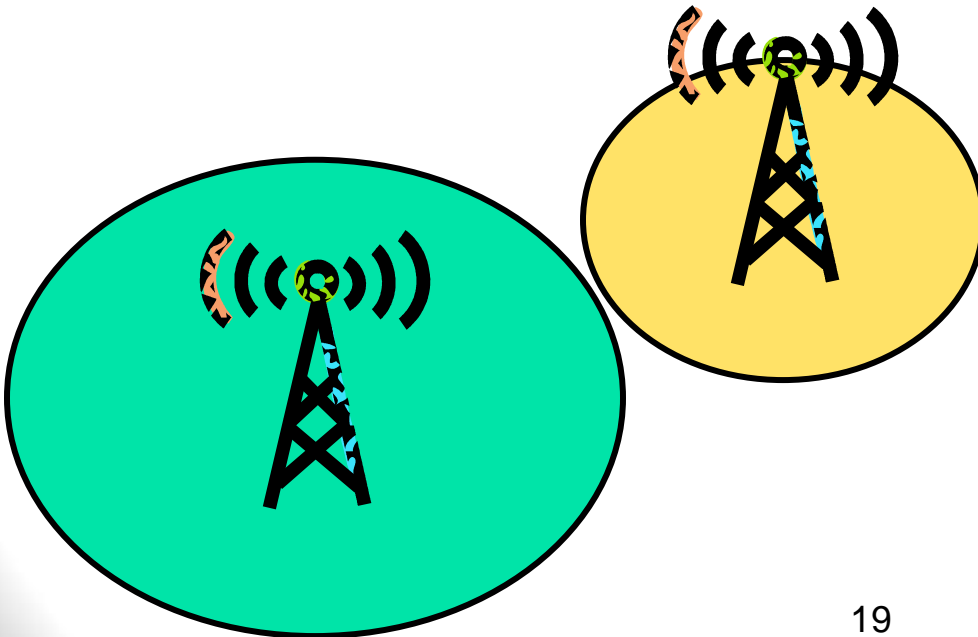




800 MHz Interstitial Channel in Mid-Band



Interstitial Channels are Available for Licensing Based on Lack of Contour Overlap with Licensees Operating on Adjacent Standard Channels



Contour values to be studied are listed in table in Section 90.621(d)(3).



800 MHz Interstitial Channel in Mid-Band



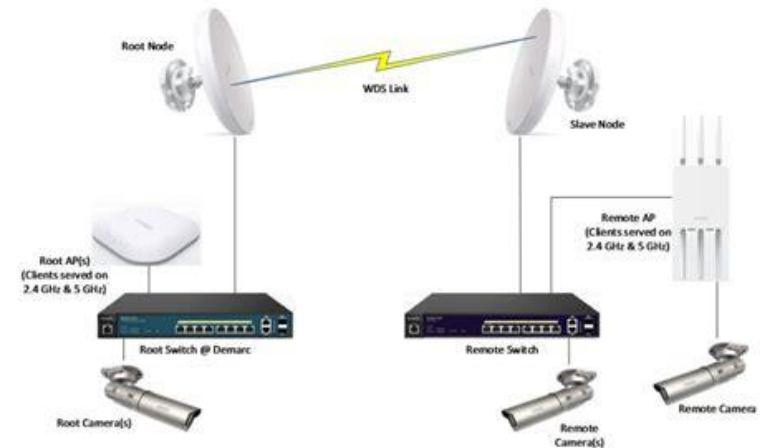
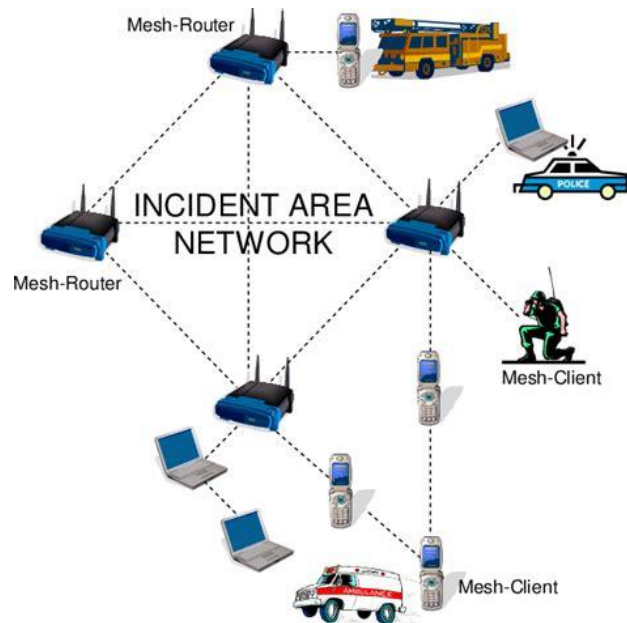
On June 6, 2022, PSHSB and WTB jointly released a Public Notice making interstitial channels in the 800 MHz Mid-Band available for licensing.



Interstitial channels can be identified in Section 90.613 of the Commission's rules as those channels with an "a" after the channel number.



III. The 4.9 GHz Band: Rulemaking





4.9 GHz Rulemaking



4.9 GHz Band (4940-4990 MHz)

- ➔ In 2002, the Commission allocated fifty megahertz of spectrum in the 4940-4990 MHz band (4.9 GHz band) for fixed and mobile services (except aeronautical mobile service) and designated this band for use in support of public safety.
- ➔ The 4.9 GHz band is intended to support a wide variety of broadband applications.
- ➔ But in 2012, the Commission concluded the band has fallen short of its potential. Therefore, it initiated a rulemaking with the goal of maximizing the potential of the spectrum.



4.9 GHz Rulemaking



Most Recent Further Notice Released in Oct 2021 Sought Comment on the Following.....

- Collecting more data in a database on public safety deployments currently licensed on a geographic-area basis.
- Adopting an interference criteria and formal frequency coordination procedures to ensure public safety licensees operate in the band free from interference.
- Opening the band to non-public safety users to help foster innovation and drive down equipment costs.





4.9 GHz Rulemaking



Staff is currently working on the next phase of the rulemaking, so.....





Questions?

